

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

---

In re MOODY'S CORPORATION  
SECURITIES LITIGATION

---

:  
:  
: **CASE NO. 1:07-CV-8375-GBD**  
:  
:

**EXPERT REPORT OF CHAD COFFMAN, CFA**

## I. INTRODUCTION

1. My name is Chad Coffman. I am the President of Winnemac Consulting, a Chicago-based firm that specializes in the application of economics, finance, statistics, and valuation principles to questions that arise in a variety of contexts, including, as here, in the context of litigation.

2. I have been asked by counsel for the Lead Plaintiffs in this matter to review, evaluate, and respond to the Expert Report of René M. Stulz (“Stulz Report”). Specifically, the Stulz Report’s stated intent is to address, “whether there is a reliable basis for Plaintiffs to assert that [Moody’s] alleged misstatements:

- a. are material;
- b. caused the claimed losses to Moody’s shareholders; and
- c. were unknown to or relied upon by the members of the class proposed by the Plaintiffs.”<sup>1</sup>

3. The materials I have relied upon in forming my opinions are summarized in **Appendix A**. Winnemac Consulting is being compensated at an hourly rate of \$450 per hour for my work on this matter and my compensation is in no way contingent on my opinions or the outcome of this case. My qualifications are described below.

## II. QUALIFICATIONS

4. I hold a Bachelors Degree in Economics with Honors from Knox College and a Masters in Public Policy from the University of Chicago. I am also a CFA charter-holder. The CFA, or Chartered Financial Analyst, designation is awarded to those who have sufficient

---

<sup>1</sup> Stulz Report at ¶ 4.

practical experience and complete a rigorous series of three exams over three years that cover a wide variety of financial topics including financial statement analysis and valuation.

5. I, along with several others, founded Winnemac Consulting in March 2008. Prior to starting Winnemac Consulting, I was employed by Chicago Partners for over twelve years where I was responsible for conducting and managing analysis in a wide variety of areas including securities valuation and damages, labor discrimination and antitrust. I have been engaged numerous times as a valuation expert both within and outside the litigation context. My experience in class action securities cases includes work for plaintiffs, defendants, D&O insurers and by a prominent mediator (Retired Judge Daniel Weinstein) to provide economic analysis and opinions in over a dozen securities class actions as well as other matters. As a result of my involvement in these cases, much of my career has been spent analyzing loss causation, damages, and making inferences about how quickly, reliably and the degree to which new information impacts securities prices.

6. My qualifications are further detailed in my curriculum vitae, which is attached as **Appendix B**.

### **III. SUMMARY OF OPINIONS**

7. Dr. Stulz does not seriously dispute the informational efficiency of the market for Moody's stock, and his own event study provides strong evidence of market efficiency (as does my event study). Accordingly, there is no economically substantive dispute that Moody's securities traded in an informationally efficient market during the Class Period.

8. Dr. Stulz's discussion of what the market "knew" about Moody's potential conflicts of interest and Moody's ratings methodology does not address Plaintiffs' allegations of

what the market did *not* know. In particular, knowledge of *potential* conflicts of interest is not the same as knowledge of Moody's succumbing to those conflicts. Moreover, with respect to the ratings methodology, market knowledge of certain less than perfect aspects of Moody's rating methodology is not equivalent to market knowledge of Plaintiffs' allegations that Moody's stated methodology substantively varied from its actual, applied methodology.

9. After analyzing Moody's common stock throughout the Class Period,<sup>2</sup> the Plaintiffs' Consolidated Amended Complaint ("Complaint"), and Lead Plaintiffs' Memorandum of Law in Support of Motion for Class Certification ("Motion"), I have formed the opinion that Plaintiffs' have articulated an economically logical and coherent theory of class-wide materiality, reliance and loss causation.

10. None of the analysis or evidence presented in the Stulz Report establishes that the misstatements alleged by Plaintiffs are immaterial or that Plaintiffs cannot identify corrective disclosures that provide a class-wide basis for loss causation.<sup>3</sup> Indeed, an event study, similar to one presented by Dr. Stulz, demonstrates that there were statistically significant declines associated with events that Plaintiffs identify as corrective disclosures.

11. Dr. Stulz's discussion of the tumult in the market during the Class Period serves as a distraction. Both my own event study and Dr. Stulz's event study control for market, industry, and/or peer factors, thereby isolating Moody's-specific price declines.

---

<sup>2</sup> The Putative Class Period is February 3, 2006 through October 24, 2007 (Complaint at ¶ 1).

<sup>3</sup> Throughout this report, when I use the term "corrective disclosure" or "alleged corrective disclosure" I am using it in the broadest context necessary for a legal finding of loss causation. In other words, by using that phrase for ease of exposition, I am not implying that the disclosure must specifically "correct" a specific previous misstatement in the sense that it directly acknowledges the falsity of an alleged misstatement or omission. The alleged disclosure might be characterized as the materialization of a previously concealed risk, expose the firm's previously concealed true financial condition, or meet whatever alternative threshold necessary to support a legal finding of loss causation. As discussed within, at this early stage of the litigation, I have not been asked to form an economic opinion regarding whether the corrective disclosures alleged in Plaintiffs' Complaint support a finding of loss causation.

12. Dr. Stulz devotes a section to his Report to the claim that Plaintiffs have not established that Moody's caused the financial crisis. None of Plaintiffs' claims require showing that Moody's caused the financial crisis.

13. Dr. Stulz devotes a section of his Report to the claim that Moody's was affected by the financial crisis. None of Plaintiffs' claims require showing that Moody's was unaffected by the financial crisis.

14. While putative class members may have different damages based upon when they purchased and/or sold Moody's stock and whether they held through a corrective disclosure, the evaluation of loss causation and the establishment of a damages formula can be accomplished on a class-wide basis as it is in many other Rule 10b-5 securities cases.

15. The remainder of this report is organized as follows: Section IV provides an overview of Moody's business and Plaintiffs' claims. Section V presents a discussion of market efficiency. Section VI discusses why Dr. Stulz's discussion of what the market knew has no bearing on Plaintiffs' allegations, efficiency, materiality, or loss causation. Section VII explains why the Stulz Report does not preclude materiality of Plaintiffs' alleged misrepresentations and omissions. Section VIII discusses Plaintiffs' theory of loss causation and the event study analysis.

16. I understand that discovery in this case is ongoing and has not yet been completed. Therefore, I reserve the right to amend this report to reflect new information that may become available to me in light of the ongoing discovery process and/or future rulings from the Court. If I conduct a damages analysis and submit a damages report in this matter in the future, I anticipate expanding the focus of my work at that time to include further analysis of the facts and claims in this Action, including other possible events during or after the Class Period

that may have caused additional class member losses associated with the events and allegations in the Complaint.

#### **IV. SUMMARY OF MOODY'S BUSINESS AND PLAINTIFFS' ALLEGATIONS**

17. Moody's is headquartered in New York City<sup>4</sup> and trades under the symbol of MCO on the New York Stock Exchange.<sup>5</sup> The Company is divided into two segments.<sup>6</sup> Moody's Investors Service provides credit ratings and related research on a wide range of debt obligations and entities, including structured finance securities, and accounted for 90% of Moody's revenue and income during the Class Period.<sup>7</sup> Moody's Analytics (classified as Moody's KMV prior to 2007) provides other services, such as quantitative risk measures, risk scoring software, credit portfolio management solutions, and securities pricing software and valuation models.<sup>8</sup>

18. Rating fees paid by debt issuers accounted for most of the revenue of Moody's Investors Service.<sup>9</sup> Though Moody's has been rating corporate debt for decades, rating structured finance products has provided Moody's and its competitors with the bulk of their revenue in recent years.<sup>10</sup> In the last three decades, structured finance security issuance has grown from being immaterial to more than \$3 trillion per year<sup>11</sup> and since 2004, structured finance has provided Moody's with more rating revenue and income than all other product

---

<sup>4</sup> Moody's 2008 10-K, p. 9.

<sup>5</sup> Bloomberg.

<sup>6</sup> Moody's 2008 10-K, p. 9.

<sup>7</sup> Moody's 2006, 2007 and 2008 10-K.

<sup>8</sup> Moody's 2006, 2007 and 2008 10-K.

<sup>9</sup> Moody's 2008 10-K, p. 10.

<sup>10</sup> Moody's 2006, 2007 and 2008 10-K.

<sup>11</sup> Complaint at ¶ 12.

ratings combined (corporate and financial institution debt, sovereign debt, municipal bonds).<sup>12</sup> As of 2008, Moody's had rated 109,000 structured finance obligations.<sup>13</sup>

19. Plaintiffs allege that Moody's made material misrepresentations and omissions upon which investors relied. These alleged misstatements and omissions related to Moody's independence and their ratings methodology.

20. Throughout the Class Period, Moody's stated that it was an independent and objective provider of credit ratings and had adequately managed and/or eliminated the potential conflicts of interest that are inherent in an issuer pays model. Plaintiffs allege that Moody's falsely claimed that it was an independent body publishing ratings accurately and impartially from interested entities, particularly issuers of securities and investment banks.<sup>14</sup> For instance, Moody's 2005 and 2006 Annual Reports repeatedly refer to its reputation for independence.<sup>15</sup>

21. Moody's 2005 Annual Report Letter to Shareholders states:

Moody's is one of the world's most respected sources of independent opinion and analysis about credit risk, helping set a common global standard for comparing debt instruments.

The above statements should be familiar to Moody's long-term stakeholders and other regular readers of our Annual Reports. The words bear repeating, however, because they speak to the fundamental ideas driving our strategy, key business initiatives and future direction....

Moody's must be increasingly rigorous and transparent in demonstrating our independence and managing potential conflicts. We have responded with a variety of actions, including adopting a Code of Professional Conduct for all rating agency employees (in addition to the corporation's existing Business Code of Conduct), establishing an office of Ratings Compliance, strengthening our credit policy function, and publishing more comprehensive and transparent rating methodologies so that users of our ratings can better understand the basis of our opinions.

---

<sup>12</sup> Moody's 2004, 2005, 2006, 2007 and 2008 10-K.

<sup>13</sup> Moody's 2008 10-K, p. 9.

<sup>14</sup> Complaint at ¶ 55.

<sup>15</sup> Complaint at ¶¶ 71, 83.

To be “one of the most respected sources” of such opinion, Moody’s analysis must meet or exceed expectations for quality, including the predictive power and clarity of our analytical tools and credit ratings. This requires Moody’s analysis to keep pace with a constantly innovating marketplace for credit instruments, as visibly demonstrated, for example, by the continued advances in asset securitization.

22. Moody’s Code of Conduct specifies that Moody’s “maintains independence in its relationship with Issuers and other interested entities.”<sup>16</sup> Plaintiffs allege that contrary to its public statements, Moody’s did not manage its conflicts of interest and “systematically compromised” its independence.<sup>17</sup>

23. Examples of conduct allegedly inconsistent with Moody’s statements regarding independence are numerous as explained in the Court’s Opinion and Order (“Opinion”) dated February 18, 2009. A *Wall Street Journal* article on April 11, 2008 provided an example of an occasion on which Moody’s had modified its ratings in response to a client’s complaint in order to retain the client’s business<sup>18</sup> and that Moody’s COO fired or reassigned mortgage-backed securities analysts who were seen as too cautious, replacing them with individuals who gave higher ratings.<sup>19</sup> Another *Wall Street Journal* article reported analyst reassignments in response to bankers’ requests for analysts who asked fewer questions and were less “fussy” about ratings.<sup>20</sup> A May 21, 2008 *Financial Times* article indicated that Moody’s had concealed that it

---

<sup>16</sup> “Moody’s Code of Professional Conduct,” *Moody’s Investor Service*, November 2008; Complaint at ¶ 68.

<sup>17</sup> Complaint at ¶ 55.

<sup>18</sup> “Rating Game: As Housing Boomed, Moody’s Opened Up,” *The Wall Street Journal*, April 11, 2008; Complaint at ¶ 347

<sup>19</sup> “Rating Game: As Housing Boomed, Moody’s Opened Up,” *The Wall Street Journal*, April 11, 2008; Complaint at ¶ 352

<sup>20</sup> “At Request of Bond Issuers or Bankers, Credit-Rating Firms Switch Analysts,” *The Wall Street Journal*, May 23, 2008; Complaint at ¶ 350



had improperly rated some bonds<sup>21</sup> and rather than issue new ratings, Moody's chose to adjust its methodology to maintain the current ratings.<sup>22</sup>

24. Furthermore, the Complaint alleges that Moody's employees and clients attempted to raise questions about the Company's independence. The CEO, in a confidential presentation, admitted that sometimes Moody's succumbed to pressure from clients and failed to adhere to its ratings system.<sup>23</sup> And some financial institutions warned Moody's about mistakes it had made in assigning ratings to their issues and explicitly warned Moody's that its ratings were useless if it could not quantify potential losses.<sup>24</sup>

25. A second category of alleged misstatements and omissions concerns Moody's ratings methodologies.<sup>25</sup> For example, Plaintiffs allege that Moody's did not rely on originator information when assessing RMBS, CDOs, and SIVs until after April 2008<sup>26</sup> even though Moody's stated on at least two separate occasions, once in 2003 and again in 2007, that it relied on "originator and servicer quality" in its "analysis of loan performance."<sup>27</sup> Moody's made assurances that "[c]redit Ratings will reflect consideration of all information known," and that Moody's will "take steps to avoid issuing credit analysis, ratings or reports" that "are otherwise

---

<sup>21</sup> Complaint at ¶ 363; "CPDOs expose ratings flaw at Moody's," *Financial Times*, May 20, 2008, 11:36 PM.

<sup>22</sup> "CPDOs expose ratings flaw at Moody's," *Financial Times*, May 20, 2008, 11:36 PM.; Complaint at ¶ 363

<sup>23</sup> Motion at p. 8.

<sup>24</sup> Opinion citing Hume Declaration Exhibit A8.

<sup>25</sup> Complaint at ¶¶ 111 - 112

<sup>26</sup> Complaint at ¶¶ 112-126.

<sup>27</sup> "Moody's Mortgage Metrics: A Model Analysis of Residential Mortgage Pools," *Moody's Investor Service Special Report*, April 1, 2003 Complaint at ¶¶ 111-112.

misleading as to the general creditworthiness of an Issuer or obligation.”<sup>28</sup> According to Plaintiffs, Moody’s subsequent statements provide evidence for this because in 2007 the Company said that it would *start* to factor in “the credit and quality control processes of loan originators,” but the market thought that it had been doing this all along. Moody’s proceeded to downgrade 40% of its subprime RMBS issues.<sup>29</sup> The Complaint asserts that Moody’s did not actually consider originator quality until April 2008.

## V. EFFICIENCY

26. Plaintiffs’ claim of class-wide reliance is based upon the “fraud on the market” theory. The “fraud on the market” theory centers on the principle that in an efficient market (one in which all publicly available information is incorporated into the market price), all purchasers implicitly rely on any misrepresentations since the value of those misrepresentations is incorporated into the stock’s purchase price. The “fraud on the market” theory was first addressed by the U.S. Supreme Court in *Basic v. Levinson*:

In an open and developed securities market, the price of a company's stock is determined by the available material information regarding the company and its business... Misleading statements will therefore defraud purchasers of stock even if the purchasers do not directly rely on the misstatements... The causal connection between the defendants' fraud and the plaintiffs' purchase of stock in such a case is no less significant than in a case of direct reliance on misrepresentations.<sup>30</sup>

27. As indicated in *Basic*, in an open, developed and efficient market, prices reflect what is known about a company. If a company provides the market with misleading information

---

<sup>28</sup> “Moody’s Code of Professional Conduct,” *Moody’s Investor Service*, November 2008; Complaint at ¶ 68.

<sup>29</sup> Complaint at ¶¶ 118, 122, and 126

<sup>30</sup> *Basic v. Levinson*, 485 U.S. 224, 240 (1988).

regarding its financial strength or business practices, the market price will be inflated compared to what the price would have been if the truth were known (“but-for” misleading information). Thus, in an efficient market where Plaintiffs prove there were material misrepresentations, all purchasers implicitly relied on those misrepresentations.

28. Determining whether the market for a security was “open and developed” or “efficient” to the degree required for a presumption of reliance under the “fraud on the market” theory is an empirical exercise. The Stulz Report does not conduct this empirical exercise and Dr. Stulz does not opine that the market for Moody’s stock was inefficient. In fact, his use of an event study presumes the efficiency of the market. This is affirmed in Dr. Stulz’s Deposition testimony:

I have said that I did not conduct studies that were specifically focused on market efficiency. The way I proceed with the event study is interpret the event study assuming that the market is efficient...<sup>31</sup>

29. While Dr. Stulz indicates that he was not asked to discuss efficiency, he nevertheless offers the following opinion at Stulz Report fn. 2:

Plaintiffs posit factors derived from court decisions, often referred to as “Cammer factors,” as bearing upon market efficiency (Memorandum for Class Certification, pp. 18-19). However, most of these factors — trading volume, analyst coverage, number of market makers, and eligibility to file form S-3— are simply metrics that are generally satisfied by almost any security that trades on a major exchange; they are not tests of market efficiency.

30. It is neither surprising nor concerning that almost all stocks trading on a major exchange, like Moody’s, would satisfy the Cammer factors. That is not an indictment of the metrics as much as it is consistent with the notion that the markets for stocks that trade on a major exchange are generally efficient. And while none of the individual Cammer factors cited

---

<sup>31</sup> Deposition of René M. Stulz, August 10, 2010, p. 73.

by Dr. Stulz represent a formal statistical test of market efficiency in isolation, each has its own economic relevance as a metric for analyzing efficiency as a whole.

31. Indeed, all of the data presented by Plaintiffs indicate that Moody's easily meets the requirements set out by *Cammer*.<sup>32</sup> As I describe the Moody's-specific evidence already in the record for each factor, I will also discuss their economic relevance to the finding of an efficient market.

32. The first *Cammer* factor is average weekly trading volume as a fraction of shares outstanding. This is an important indicator of market efficiency because volume is objectively quantifiable and comparable across securities. In addition, high trading volume is generally indicative of continuity, liquidity, and market depth, which, in turn, are highly indicative of market efficiency.<sup>33</sup> Substantial volume indicates that there is likely a market for the collection and distribution of information about the security. As Thomas and Cotter explain, "Trading volume was also considered as an eligibility standard because it affects information dissemination to the market, and was an important criterion for investment analysts in deciding which stocks to follow."<sup>34</sup>

---

<sup>32</sup> *Cammer v. Bloom*, Civil Action No. 88-2458, U.S. District Court for the District of New Jersey, April 19, 1989.; Motion at p. 19.

<sup>33</sup> Continuity means that trades may occur at any time. Liquidity in this context means that investors can convert cash into shares or shares into cash at a price similar to that of the prior trade (assuming no new information). William F. Sharpe, Gordon J. Alexander, and Jeffery V. Bailey. "Investments," Prentice Hall, Fifth Edition, 1995, pp. 44-45. Bromberg and Lowenfels' define a market that has continuity and liquidity as "the ability to absorb a reasonable amount of trading with relatively small price changes." Bromberg & Lowenfels, *Securities Fraud and Commodities Fraud*, § 8.6 (Aug. 1988) as cited by *Cammer*, p. 2. Market depth refers to the number of shares that can be traded at quoted prices. A deep market will have significant orders on the buy and sell side so that the market can experience a relatively large market order without greatly altering the market price. See Yakov Amihud, Haim Mendelson and Lasse Heje Pedersen, 2006, "Liquidity and Asset Prices," *Foundations and Trends in Finance* Vol. 1(4) pp. 269-364.

<sup>34</sup> Randall S. Thomas and James F. Cotter, "Measuring Securities Market Efficiency in the Regulatory Setting." *Law and Contemporary Problems* Vol. 63, p 3.

33. Moody's average weekly trading volume during the Class Period far exceeded benchmarks that the Courts have established. The *Cammer* Court stated that "[t]urnover measured by average weekly trading of 2% or more of the outstanding shares would justify a strong presumption that the market for a security is an efficient one."<sup>35</sup> Moody's common stock averaged over 12 million shares traded each week during the Class Period, with a trading volume of 4.6% of shares outstanding, more than double the *Cammer* Court's standard for justifying a strong presumption of market efficiency. Therefore, from this metric alone, there is a strong presumption that Moody's stock trades in an efficient market.

34. The next *Cammer* factor concerns analyst coverage. Significant analyst coverage implies that there is sufficient interest in a company and its securities, that there is an active market for information regarding the company and its securities, and that information is widely distributed. The *Cammer* decision stated that "it would be persuasive to allege a significant number of securities analysts followed and reported on a company's stock during the class period."<sup>36</sup> The Motion indicates that there was an abundance of well-known analysts following and reporting on Moody's, including such well-known firms as Goldman Sachs, Morgan Stanley, and Credit Suisse,<sup>37</sup> satisfying this factor for efficiency.

35. As discussed in the Motion, because Moody's trades on the NYSE, the *Cammer* factor regarding the number of "market makers" is not an applicable metric to employ.<sup>38</sup> It is worth noting that unlike an over the counter market that relies on decentralized market makers providing liquidity for trading, the NYSE conducts trading on a continuous auction system where

---

<sup>35</sup> Motion at p. 3.

<sup>36</sup> Motion at p. 18.

<sup>37</sup> Motion at p. 3.

<sup>38</sup> Motion at p. 18, especially fn. 5.

an assigned specialist is physically present at all times during open trading.<sup>39</sup> These “specialists” are required by exchange rules to maintain a “fair and orderly” market and to take the other side of a trade even if it means having to buy or sell from their own accounts.<sup>40</sup> The specialist system thus provides continuous liquidity for the security. In addition, a vast majority of trading today is accomplished by electronically matching orders without the involvement of a specialist at all.<sup>41</sup> In my opinion, the market structure of the NYSE is highly supportive of the conclusion that Moody’s traded in an efficient market throughout the Class Period.

36. The Motion clearly details that Moody’s also satisfied the requirements for filing an S-3 registration during the Class Period.<sup>42</sup> Eligibility to file a Form S-3 is confirmatory evidence about the number of shares traded and the value of shares outstanding held by non-affiliates that imply efficiency.<sup>43</sup>

37. In sum, the average weekly trading volume far exceeds benchmarks that the Courts have established, there were myriad securities analysts following and reporting on Moody’s, Moody’s was S-3 eligible, and Moody’s traded on the NYSE, which is often held as one of the benchmarks of efficient markets. These facts are highly supportive of the conclusion that Moody’s stock traded in an open, developed, and efficient market throughout the Class Period. Dr. Stulz does not refute that Moody’s meets the requirements set for any of these

---

<sup>39</sup> William F. Sharpe, Gordon J. Alexander, Jeffery V. Bailey, “Investments,” Prentice Hall, Fifth Edition, pp. 45-53. Frank J. Fabozzi, Franco Modigliani, Frank J. Jones, “Foundations of Financial Markets and Institutions,” Prentice Hall, Fourth Edition, 2010, Chapter 18 – Appendix 1.

<sup>40</sup> Frank J. Fabozzi, Franco Modigliani, Frank J. Jones, “Foundations of Financial Markets and Institutions,” Prentice Hall, Fourth Edition, 2010, Chapter 18 – Appendix 1.

<sup>41</sup> Frank J. Fabozzi, Franco Modigliani, Frank J. Jones, “Foundations of Financial Markets and Institutions,” Prentice Hall, Fourth Edition, 2010, Chapter 18 – Appendix 1.

<sup>42</sup> Motion at p. 21.

<sup>43</sup> *Cammer v. Bloom*, Civil Action No. 88-2458, U.S. District Court for the District of New Jersey, April 19, 1989, p 22.

*Cammer* factors and his passing criticism of the factors themselves are not supported by any reliable theory or evidence.

38. Dr. Stulz favors the fifth *Cammer* factor, cause and effect, as a test of market efficiency. Dr. Stulz continues in fn. 2 to criticize the cause and effect analysis presented by Plaintiffs in their brief:

The fifth *Cammer* factor, in contrast, is the most critical test for market efficiency. It requires an assessment of whether new information is fully reflected in the stock price in a timely fashion. Plaintiffs' discussion of the fifth *Cammer* factor is deficient in at least two key respects. First, in discussing how Moody's stock price reacts to new information, they present only raw stock returns, without investigating whether such reaction was due to market effects and industry effects or was simply random noise. The second deficiency is that all of the example days Plaintiffs cite (October 24-25, 2007, April 11, 2008, and May 21, 2008) are at the close or even outside of the proposed Class Period. (Memorandum for Class Certification, p. 21.) Even if Plaintiffs had presented an appropriate scientific inquiry including abnormal returns, it seems that the question at hand is whether the market was efficient during the proposed Class Period when class members would have relied on the supposedly efficient pricing to make their investment decisions.

39. To be clear, Dr. Stulz does not suggest (let alone set out to prove), based on his own event study, that the market for Moody's stock during the Class Period was inefficient. As he stated at his deposition, "At this point, without having done a study, as I say that I didn't do, I couldn't come up with a smoking gun showing inefficiency."<sup>44</sup> In fact, Dr. Stulz's event study analysis assumes an efficient market because he uses his event study "in assessing both materiality and loss causation."<sup>45</sup> Dr. Stulz evaluates Moody's stock price movements in reaction to events throughout the Class Period in testing for materiality and loss causation, a

---

<sup>44</sup> Deposition of René M. Stulz, August 10, 2010, p. 74

<sup>45</sup> Stulz Report at ¶ 63.

sensible exercise only if Dr. Stulz accepts that Moody's-specific news was efficiently incorporated into Moody's stock price.<sup>46</sup>

40. Using Dr. Stulz's event study, and my own, I have performed a formal analysis of the cause and effect relationship between new Moody's specific information and changes in Moody's stock price. This entailed a review of more than 1,000 news articles from Factiva, analyst reports issued by equity research firms covering Moody's, Congressional testimony, and Moody's SEC filings. For each day during the Class Period, I searched for news that would potentially cause a material change in the value of Moody's stock.

41. Next, I performed an event study analysis similar to Dr. Stulz's event study. In order to account for any potential changing volatility as Dr. Stulz does, I implemented a rolling regression where a separate model is estimated each day based on the prior 120 data points.<sup>47</sup> The model I ran is similar to the regression models discussed by Dr. Stulz. We both included the S&P Financial Index, but I used the S&P 500 Index ("S&P") as a measure of the broad market (compared to the NYSE/NASDAQ composite) and I used a value weighted peer index derived from the companies listed on Moody's annual reports (compared to an equal weighted index of Fimalac and McGraw-Hill, the parent companies of Fitch and S&P).<sup>48</sup>

42. The model indicates a positive correlation between Moody's common stock returns and each of the indices identified. For example, on average during the Class Period, the

---

<sup>46</sup> Dr. Stulz, at his deposition, agreed with the proposition that his event study presumes an efficient market. Deposition of René M. Stulz, August 10, 2010, pp. 73-74.

<sup>47</sup> Note that Dr. Stulz ran a similar model (see Stulz Report fn. 86). My use of 120 days rather than the 252 that Dr. Stulz references is supported by a source Dr. Stulz cites, MacKinlay, who states "For example, in an event study using daily data and the market model, the market model parameters could be estimated over the 120 days prior to the event." (at page 15).

<sup>48</sup> The peer companies in my peer index include: Dow Jones & Co., The McGraw-Hill Co., Pearson PLC, Reuters Group PLC, Thomson Corporation, and Wolters Kluwer.



coefficient on the S&P 500 is 1.2, which means that for every 1% increase (decrease) in the S&P 500, we expect Moody's stock price to rise (fall) 1.2%.

43. Another important statistic from the regression is the Root Mean Squared Error which measures the degree of imprecision in the predictions from the regression model (the "standard deviation" of the errors). For example, let's say that based on movements in the three indices identified above, the model predicts that Moody's stock price would rise 1% (this is the "predicted return") and the root mean squared error is 1.5%. Because of the inherent randomness observed in stock price returns, we do not expect the model to predict returns exactly. For this example, let's assume we observe an actual return of 1.6%. Thus, the "abnormal return" is 0.6% (1.6% actual return minus 1% predicted return).

44. We then seek to determine whether the daily abnormal return (0.6% in the example) is sufficiently large that we can reject randomness as the explanation. This is where we rely on the standard deviation of the errors (Root Mean Squared Error) from the regression model and a statistical test called a "t-test" using a "t-statistic."

45. A "t-statistic" measures the number of standard deviations our actual observation is from the predicted value. In the example, an abnormal return of 0.6% represents 0.40 standard deviations, or a t-statistic of 0.4 (0.6% abnormal return divided by the root mean squared error of 1.5%). Probability theory tells us that based on randomness alone the abnormal return should only have a t-statistic of greater than 1.96 standard deviations 5% of the time.<sup>49</sup> Stating it another way, we have 95% confidence that the actual return will fall within 1.96 standard deviations of the predicted return unless there is some non-random explanation. Because our

---

<sup>49</sup> David I. Tabak and Frederick C. Dunbar, "Materiality and Magnitude: Event Studies in the Courtroom," Ch. 19, Litigation Services Handbook, The Role of the Financial Expert, Third Edition, 2001.

example only has a t-statistic of 0.4, we would say that this abnormal return is statistically insignificant and we could not reject randomness as the cause for the difference between the predicted and actual returns. However, if on a particular day we observe an abnormal return that has a t-statistic greater than 1.96 (“statistically significant”) AND we observe firm-specific information, we reject randomness as the explanation and conclude that the information is what caused the stock price to move (thus establishing loss causation if the news is a corrective disclosure).

46. For example, on May 21, 2008, Moody’s disclosed a computer coding error in the calculation of one of its structured finance products, and in reaction, Moody’s shares fell almost 16% (See **Exhibit 1**).<sup>50,51</sup> The abnormal return after controlling for the market and industry was over 13% and highly statistically significant with a t-statistic of -6.25. These findings demonstrate that Moody’s stock price reacted quickly to Moody’s-specific news (regardless of whether or not Dr. Stulz’s characterization of this day as an “over-reaction” is correct, this event provides strong evidence of informational efficiency).

47. I also find that Moody’s stock price quickly incorporated positive news, a further indication of efficiency. For instance, on August 1, 2007, Moody’s announced their second quarter results which included substantial increases in year over year revenue, operating income, and earnings. In addition, Moody’s announced a \$2 billion share repurchase program<sup>52</sup> (share repurchases signal to the market that the company believes its shares are undervalued)<sup>53</sup>. In

---

<sup>50</sup> “Moody’s (MCO) Sinks on Reports of Bad Debt Ratings Due To Coding Error,” StreetInsider.com.

<sup>51</sup> See ¶ 87 under Materiality.

<sup>52</sup> “Moody’s Corporation Reports Results for Second Quarter of 2007,” *Business Wire*, 07:00 August 1, 2007; “Moody’s board authorizes new \$2B share repurchase program,” *Associated Press Newswires*, 07:13 August 1, 2007.

<sup>53</sup> William F. Sharpe, Gordon J. Alexander, and Jeffery V. Bailey, “Investments,” Prentice Hall, Fifth Edition, 1995, p. 510.

response, Moody's stock price rose almost 3% which was 3.4% more than the market model predicted. The t-statistic for this abnormal return was 2.21, indicating that it is statistically significant.

48. More formally, out of the 434 trading days during the Class Period, I identified 45 days that had potentially material Company-specific news. **Exhibit 1** shows that on ten (10) of these days (or 22.2%), I found a statistically significant stock price movement, either positive or negative. This is much higher than the 5% we would expect if there was no relationship between company-specific news and movements in the market price. Conversely, on the 389 days without potentially material news, only 19 (or 4.9%) were statistically significant which is entirely consistent with what would be expected from randomness alone. Taken together, these results provide scientific evidence of a cause and effect relationship between Moody's-specific news and Moody's stock price movements.<sup>54</sup>

49. The same conclusion can be drawn from Dr. Stulz's event study. For the 45 days with potentially material news, he finds that seven (7) have significant returns (or 15.5%) versus only 3.1% for days without potentially material news. This is a significant difference using a chi-square test, thus indicating a clear cause and effect relationship.

50. In sum, there is overwhelming evidence that Moody's stock traded in an efficient market. On all *Cammer* factors, including the event study, Moody's satisfies the benchmarks and guidelines considered by the Court. In addition, Dr. Stulz offers no substantive economic evidence to reject the notion that Moody's stock traded in an informationally efficient market.

---

<sup>54</sup> A Chi-square test indicates that I can reject the null hypothesis that news had no impact on Moody's stock price movements. A Chi-square test is a test of statistical significance, similar to a t-test, but is designed specifically to test the significance of differences in relative frequencies. For example, see Alan Agresti, "Categorical Data Analysis", Wiley, 1990, pp. 42-54: "The [Chi-Square] statistic...compares an observed distribution with a hypothetical one."

## **VI. PRIOR KNOWLEDGE**

51. Dr. Stulz asserts that Plaintiffs cannot establish materiality, reliance or loss causation because the market knew about the limitations of credit ratings, the existence of potential conflicts of interest, and weaknesses in Moody's methodologies. However, I find that none of the analysis or evidence presented in the Stulz Report precludes Plaintiffs from proving reliance, materiality or loss causation on a class-wide basis. In particular, if Plaintiffs' allegations are true, and Moody's had compromised its independence and misinformed the market about its ratings methodology, none of the information identified by Dr. Stulz as "prior knowledge" precludes finding that Moody's statements misled investors and caused artificial inflation in the price of Moody's stock.

52. Before turning to topics more relevant to Plaintiffs' allegations, Dr. Stulz first argues against the importance of credit ratings in general. The Stulz Report states that the market knew for decades that ratings have limited predictability. In addition, Dr. Stulz cites studies showing that ratings changes tend to lag the stock market, implying that Moody's ratings do not influence the market because they follow rather than lead it. Finally, Dr. Stulz notes that ratings only have to do with creditworthiness, not liquidity or other risks.

53. None of these arguments addresses whether, or the extent to which, Moody's misrepresented or omitted material facts about its independence or ratings methodology as Plaintiffs allege. Furthermore, the implication that the market understood that credit ratings have little or no value, and therefore Moody's management was somehow incapable of inflating its stock price, is illogical. He fails to explain how if the market understood credit ratings have such little value, why:

- Moody's, and its competitors, sell billions of dollars worth of ratings annually.
- On the basis of being able to sell ratings services, Moody's had a market capitalization of between \$12.3 billion and \$18.9 billion during the Class Period.
- Many institutions, including government and private entities, rely on credit ratings as part of their investment criteria.
- Congress felt the need to accredit the credit rating firms.
- There has been so much news and attention paid to the role of credit ratings agencies in precipitating the financial crisis.
- Moody's emphasized that their reputation was material to their success. Executives testified to Congress that "ratings quality is paramount"<sup>55</sup> and "It has always been the focus of Moody's management and analysts on producing the highest quality ratings and strengthening our reputation to the maximum degree."<sup>56,57</sup>

54. Downplaying the usefulness and importance of credit ratings is both irrelevant and at odds with easily observable economic facts which support their, at least perceived, value.

#### *Knowledge of Conflicts of Interest*

55. Dr. Stulz asserts that the market knew about conflicts of interest in Moody's business throughout the Class Period. Dr. Stulz notes that the conflict of interest inherent in Moody's business (that the "issuer pays") was well known and discussed in Congress, by analysts, and in the general news media. Dr. Stulz fails to acknowledge that even though a *potential* conflict of interest exists, the Company can still mislead investors about whether they regularly succumb to that conflict. Plaintiffs' Complaint is not predicated on the notion that the market was unaware of potential conflicts of interest at Moody's. Their claim is that despite publicly touting the independence and integrity of their ratings, and that it properly managed

---

<sup>55</sup> Raymond W. McDaniel, testimony before Congress, "Panel III of a Hearing of the Investigations Subcommittee of the Senate Homeland Security and Governmental Affairs Committee; Subject: Wall Street and the Financial Crisis: The Role of Credit Rating Agencies," *Federal News Service*, April 23, 2010 at p. 14.

<sup>56</sup> Richard Cantor, testimony before Congress, "Hearing of the House Oversight and Government Reform Committee; Subject: Credit Rating Agencies and the Next Financial Crisis," *Federal News Service*, September 30, 2009 at p.35.

<sup>57</sup> See ¶ 93 for further examples of Moody's statements regarding their reputation and managing conflicts of interest.

conflicts of interest, Moody's succumbed to the conflict of interest in assigning ratings. None of the evidence cited by Dr. Stulz or Defendants shows that information was available to purchasers during the Class Period.

56. Instead, Dr. Stulz and Defendants' proffered materials discuss general awareness of conflicts of interest inherent in the issuer pays model. For example, in his effort to portray a high level of concern regarding the publicly known conflicts of interest, Dr. Stulz quotes *The Economist* magazine as follows:

[t]he big agencies' business model has a built-in conflict of interest. Ratings are paid for by the issuers of bonds and other forms of tradable debt, not by investors who use them. Can they be completely independent of the firms who pay the bills?<sup>58</sup>

But Dr. Stulz neglects to include what the *Economist* article says next:

The agencies insist they can. Internal firewalls bar analysts from fee discussions, they say, and each issuer accounts for a tiny proportion of their revenues. Their businesses stand or fall on their reputation for independence, and they would never risk that.<sup>59</sup>

57. Also, citing a January 2005 BIS report in order to support the idea that the potential conflicts in structured finance may be "especially pronounced," Dr. Stulz conveniently ignores the BIS report conclusion: "Given these similarities, the Working Group believes that the complexity of managing potential conflicts of interest has not been altered by the agencies' involvement in rating structured finance instruments."<sup>60</sup>

58. Appropriately read, all of the materials cited by Dr. Stulz and Defendants express the *potential* rather than the fact of Moody's acting on its conflicts of interest. For example, the authors of the news articles cited by Dr. Stulz or Defendants directly, or through investors or

---

<sup>58</sup> Stulz Report at ¶ 38.

<sup>59</sup> "Three is no Crowd – Credit-rating agencies," *The Economist*, March 26, 2005.

<sup>60</sup> Stulz Report at ¶ 43, "The Role of Ratings in Structured Finance: Issues and Implications," *Bank for International Settlements, Committee on Global Financial System*, January 2005.

analysts who were quoted in the articles, merely expressed concern over the “potential conflicts” inherent in the Issuer Pays model.<sup>61</sup> Similarly, the legislative and regulatory materials did no more than observe the *potential* conflict of interest posed by, and inherent in, the Issuer Pays model, and further speculate that a rating agency could conceivably succumb and issue lenient ratings to gain issuer business.<sup>62</sup> None of these materials provided has any evidence that any rating agency had actually so succumbed, or knowingly provided inflated ratings for any actual, specific security.<sup>63</sup>

59. Throughout his discussion, Dr. Stulz also fails to remind the Court that *potential* conflicts of interest are ubiquitous in almost all business arrangements. Dr. Stulz himself is paid by the hour and has a *potential* conflict in that he has the financial incentive to spend more hours on his reports than is necessary in order to overbill his client. Manufacturers have incentives to cut costs on safety. Doctors have incentives to prescribe procedures that carry higher insurance reimbursement rates. The known existence of these *potential* conflicts does not imply that clients, customers, or the market don’t justifiably trust these entities to not succumb to those conflicts. And the fact these potential conflicts are known does not shield those who violate that trust from potential liability or loss in value. In addition, there is a countervailing economic force to protect one’s reputation:

---

<sup>61</sup> See, e.g., Ehrenberg Exhibit 23 at p. 1: “Several senators said the lack of competition is compounded by potential conflicts [from the Issuer Pays model]”; Ehrenberg Exhibit 28 at p.1: “Borrowers said the [rating] agencies’ focus on profits and fee structures *could* cause conflicts of interest, and called for increased disclosure and transparency guidelines.” (emphasis added); See Ehrenberg Exhibit 34 at p. 2.

<sup>62</sup> See, e.g., Ehrenberg Exhibit 12 at pp. 23, 41: “The practice of issuers paying for their own ratings creates the *potential* for a conflict of interest. *Arguably*, the dependence of rating agencies on revenues from the companies they rate *could* induce them to rate issues more liberally . . .” (emphasis added); Ehrenberg Exhibit 14 at p. 16; Ehrenberg Exhibit 15 at p. 9; Ehrenberg Exhibit 17 at p. 2.

<sup>63</sup> Of the many exhibits cited by Defendants and Dr. Stulz, only two identified any specific securities that were purportedly misrated, and in both cases it was not Moody’s providing the rating. See Ehrenberg Exhibit 27; Ehrenberg Exhibit 33.

Bond rating agencies have an obvious conflict of interest. They have a financial incentive to accommodate the preferences of bond issuers because they are selected and paid by the issuers. This incentive conflicts with agencies' stated goal of supplying independent and objective credit-risk analysis to investors. Bond rating agencies also have a countervailing incentive to build and protect their reputations for being independent and objective.<sup>64</sup>

60. Indeed, that economic logic is inherent in some of the very documents proffered by Defendants. For example, the evidence presented in the associated regulatory and legislative proceedings reports reach conclusions which are at odds with Defendants' notion that the knowledge of potential conflicts was sufficient for the market to understand the fact of succumbing to those conflicts. For example, the SEC's January 2003 report on the credit rating agencies concluded:

*In general, hearing participants did not believe that reliance by rating agencies on issuer fees leads to significant conflicts of interest, or otherwise calls into question the overall objectivity of credit ratings. While the issuer-fee model naturally creates the potential for conflict of interest and ratings inflation, most were of the view that this conflict is manageable and, for the most part, has been effectively addressed by the credit rating agencies. The rating agencies take the position that their reputation for issuing objective and credible ratings is of paramount importance, and that they would be loathe to jeopardize that reputation to mollify a particular issuer. Furthermore, the rating agencies have implemented a number of policies and procedures designed to assure the independence and objectivity of the ratings process, such as requiring ratings decisions to be made by a ratings committee, imposing investment restrictions, and adhering to fixed fee schedules. In addition, they assert that rating analyst compensation is merit-based (e.g., based on the demonstrated accuracy of their ratings), and is not dependent on the level of fees paid by issuers the analyst rates. While most hearing participants agreed that, for the most part, the rating agencies had effectively managed this potential conflict, they stressed the importance of credit rating agencies implementing stringent firewalls, independent compensation, and other related procedures. [Emphasis added]*<sup>65</sup>

61. Perhaps the most rigorous evidence presented during the regulatory and

---

<sup>64</sup> **Exhibit 2** at p. 2 (Daniel M. Covitz and Paul Harrison, "Testing Conflicts of Interest at Bond Ratings Agencies with Market Anticipation: Evidence that Reputation Incentives Dominate," *The Federal Reserve Board Finance and Economics Discussion Series*, December 2003).

<sup>65</sup> See Ehrenberg Exhibit 12 at p. 23; **Exhibit 3** (Letter from SEC Chairman William H. Donaldson to the Honorable Richard H. Baker, Chairman, Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises, U. S. House of Representatives, June 4, 2003 at pp. 12-13.; Ehrenberg Exhibit 18 at pp. 44-46).



legislative proceedings was a statistical analysis of rating agency ratings published by two Federal Reserve Board economists in December 2003. That study concluded that there was no evidence that the Issuer Pays conflict had actually led to any misrating and that, to the contrary, the evidence pointed to rating agencies having maintained their independence so as to safeguard their reputations:

[Our] findings strongly indicate that rating changes do not appear to be importantly influenced by rating agency conflicts of interest but, rather, suggest that rating agencies are motivated primarily by reputation-related incentives....

[O]ur cross-sectional analysis of anticipation yields no support for the conflict of interest hypothesis. To the contrary, we find substantial evidence consistent with rating agencies protecting their reputations . . . We also analyze Moody's and S&P rating changes separately. In this analysis, we again find no evidence for the conflict of interest hypothesis...."

*In conclusion. . . we find no evidence consistent with rating agencies acting in the interests of issuers due to a conflict of interest. Instead, rating agencies appear to be relatively responsive to reputation concerns and so protect the interests of investors.*<sup>66</sup>[Emphasis added]

62. Likewise, Dr. Stulz cited a report as evidence of widespread knowledge of rating agency conflicts that actually concluded the very opposite – that there was little evidence in practice of conflicts resulting in more favorable ratings, as the first page of its “Executive Summary” makes clear:

*Evidence indicates, however, that although conflicts of interest exist, they are difficult to exploit. The market is often able to provide incentives that constrain conflicted agents... [F]inancial service providers frequently institute safeguards to reduce the incentives to exploit conflicts, thereby protecting their reputations. For example, credit rating agencies*

---

<sup>66</sup> See **Exhibit 2** at pp. 1, 5 and 23. Note that this study was cited repeatedly during legislative and regulatory proceedings, as well as in expert and regulatory reports. See, e.g., **Exhibit 4** (“Testimony of Raymond W. McDaniel, Jr., U.S. Senate Committee on Banking, Housing and Urban Affairs,” February 8, 2005, [http://banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore\\_id=7bacbaef-ce4a-46c4-ba66-cc70ea89634a](http://banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=7bacbaef-ce4a-46c4-ba66-cc70ea89634a)) at p. 8 fn. 4; Ehrenberg Exhibit 18 at p. 45 fn. 2; Committee on the Global Financial System, “The Role of Ratings in Structured Finance: Issues and Implications,” *Bank for International Settlements*, January 2005 at p. 27 fn. 30.

*are paid by issuers of securities to produce ratings, and yet there is little evidence that this leads to more favorable ratings.*<sup>67</sup> [Emphasis added]

63. Moreover, Dr. Stulz ignores the stringent denials and continued allegedly false reassurances issued by Moody's about their independence and management of potential conflicts of interest. Moody's stated repeatedly throughout the Class Period that it had the conflict of interest under control.<sup>68</sup>

64. For example, Defendant McDaniel, in three separate rounds of testimony before Congress and the SEC between 2002 and 2005, explicitly represented that Moody's had maintained its independence and objectivity and had not succumbed to any conflict of interest pressures.<sup>69</sup> Other Moody's representatives at other hearings asserted the same.<sup>70</sup> And in the handful of hearings where Moody's representatives did not appear, representatives of other

---

<sup>67</sup> Stulz Report at ¶ 38 fn. 48; Andrew Crockett, Trevor Harris, Frederic Mishkin, and Eugene White, "Conflicts of Interest in the Financial Services Industry: What Should We Do About Them", *Geneva Reports on the World Economy* 5, 2003.

<sup>68</sup> See, e.g., Ehrenberg Exhibit 32 at p. 2; Ehrenberg Exhibit 35 at p. 1; Ehrenberg Exhibit 37 at pp. 3, 6: "Moody's believes its role is a very narrow, discreet and specific one: to provide an objective opinion on the creditworthiness of a security once it has been asked to rate it... 'We think we have processes in place so there is not going to be a conflict. Ratings are assigned by committee; we turn down ratings all the time where we can't get comfortable,' says Moody's Clarkson."; Ehrenberg Exhibit 38 at p. 5.

<sup>69</sup> See, e.g., **Exhibit 5** ("Written Statement of Raymond W. McDaniel President, Moody's Investors Service, Before the United States Securities and Exchange Commission," November 21, 2002, <http://www.sec.gov/news/extra/credrate/moodys.htm>) at pp. 4-6: "Moody's internal policies and procedures have mitigated the latent conflict of interest that is inherent in the rating agency business model. As such, our rating opinions are the product of analysis that is unbiased and trustworthy."; **Exhibit 6** (Raymond McDaniel, President, Moody's Investors Service, "Statement to the United States House of Representatives Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises," September 15, 2003, [http://v3.moody.com/viewresearchdoc.aspx?docid=PBC\\_79492](http://v3.moody.com/viewresearchdoc.aspx?docid=PBC_79492)) at p. 3. **Exhibit 4** at pp. 7-8.

<sup>70</sup> See, e.g., **Exhibit 7** ("Testimony of Warren Kornfeld, Managing Director, Moody's Investors Service, Before the Subcommittee on Financial Institutions and Consumer Credit, U.S. House of Representatives," May 8, 2007, [http://financialservices.house.gov/hearing110/kornfeld\\_testimony.pdf](http://financialservices.house.gov/hearing110/kornfeld_testimony.pdf)) at p. 1 stating: "we provide an objective independent opinion on the creditworthiness of a security when we are asked to rate it."

rating agencies delivered the identical message.<sup>71</sup> These rating agency denials were noted in regulators' own testimony and in regulatory and legislative reports.<sup>72</sup> Similar reassuring statements of Moody's independence, objectivity, and denials that they had succumbed to conflicts of interest were published in many of the very news articles Defendants proffer.<sup>73</sup>

65. As the Complaint makes clear, Moody's made no secret of the risk of conflict posed by the Issuer Pays model, but it also represented repeatedly that it had taken steps to manage those conflicts.<sup>74</sup>

66. Similarly, the legislative, regulatory and expert materials that Defendants proffer in support of their own arguments often conclude the exact opposite of the propositions for which Dr. Stulz cites them. For example, a January 2005 report cited by Dr. Stulz for the proposition that conflict of interest pressures were magnified in structured finance not only concluded that there was no evidence for such a proposition, but also noted market concerns that structured finance ratings in particular were too strict.<sup>75</sup>

---

<sup>71</sup> See Ehrenberg Exhibit 18, pp. 41-48. See also **Exhibit 8** ("Statement of Rita M. Bolger, Managing Director and Associate General Counsel, Standard and Poor's", in "Legislative Solutions for The Rating Agency Duopoly," *Hearing Before the Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises of the Committee on Financial Services, U.S. House of Representatives*, June 29, 2005) at p. 15: "At S&P, we are extremely proud of our well-documented track record of providing the market with independent, objective, and credible rating opinions."

<sup>72</sup> See, e.g., Ehrenberg Exhibit 12 at pp. 23, 41: "The large rating agencies and a number of other market participants agree that the issuer-fee model creates the potential for a conflict of interest, but believe that the rating agencies historically have demonstrated an ability to effectively manage that potential conflict."; Ehrenberg Exhibit 15 at p. 9; Ehrenberg Exhibit 19 at p. 8 fn. 27.

<sup>73</sup> See, e.g., Ehrenberg Exhibit 20 at p. 2: "'What counts at the end of the day is our credibility with investors,' says Michael West, senior credit officer at Moody's. Standard & Poor's and Fitch both echo this."; Ehrenberg Exhibit 21 at pp. 2, 4-5; Ehrenberg Exhibit 22 at p. 4; Ehrenberg Exhibit 24 at p. 1; Ehrenberg Exhibit 38 at p. 5.

<sup>74</sup> See, e.g., Complaint ¶¶ 54, 60-61, 88-90.

<sup>75</sup> Stulz Report ¶ 31 fn. 37; Committee on the Global Financial System, "The Role of Ratings in Structured Finance: Issues and Implications," *Bank for International Settlements*.

67. Dr. Stulz argues that occasional discussion concerning “ratings shopping” somehow suggests the market knew enough to reject Moody’s claims of independence and objectivity.<sup>76</sup> First, “ratings shopping” is a behavior on the part of issuers whereby they seek ratings from multiple companies and then only report the most favorable ratings. In and of itself, this activity implies nothing about the independence of any credit rating agency or knowledge that the ratings agencies issued inflated ratings. It only suggests that issuers at times may have tried to exploit differences in methodologies across the agencies to achieve the best possible rating. At most, this behavior might serve to intensify the known conflict of interest discussed above, but all the same responses apply – namely that there is no evidence that the market understood Moody’s had succumbed to the conflict.

68. The materials cited by Dr. Stulz do not establish the market understood ratings shopping compromised Moody’s independence or integrity. He cites three scholarly articles and one investment bank report issued between 2000 and 2006 that express concerns about potential “ratings shopping” and its potential to undermine rating accuracy.<sup>77</sup> First, the three scholarly articles expressed these concerns in the hypothetical, and in the general (rather than anything specific to structured finance). In addition, two of the articles were addressing the potential impact of future potential regulation – not what was occurring in the present.<sup>78</sup> The third academic article does not conclude anything empirically about the existence or effect of ratings

---

<sup>76</sup> Stulz Report ¶ 48

<sup>77</sup> Stulz Report at ¶ 48, fn. 67-69

<sup>78</sup> Misa Tanaka, “The Macroeconomic Implications of the New Basel Accord,” *CEsifo Economic Studies*, v49(2), 2003, p.218: “Instead, this paper focuses on the potential macroeconomic impact of Basel II,”; Richard Cantor, “Moody’s Investors Service Response to the Consultative Paper Issued by the Basel Committee on Bank Supervision ‘A New Capital Adequacy Framework’,” *Journal of Banking & Finance*, V25, 2001, pp.171-185.

shopping.<sup>79</sup> The investment banking report, (Ehrenberg Exhibit 27) which singled out Standard & Poor's and not Moody's, asserted that ratings shopping commonly occurred in structured finance. Yet the author of that report – Mark Adelson - concluded the opposite in his September 27, 2007 Congressional Testimony even as of that late date (days before the close of the Class Period):

[t]here is no conclusive evidence that the major rating agencies have ever succumbed to the effects of rating shopping and engaged in competitive laxity. In fact, even though rating shopping became rampant in early 1990s, the major rating agencies achieved highly impressive track records during that time and in the years that followed.<sup>80</sup>

69. Dr. Stulz cannot reliably assert that the market understood that rating agencies independence had in fact been compromised by ratings shopping when the support he offers provides no such evidence.

#### *Knowledge Concerning Limitations of Moody's Models*

70. Dr. Stulz asserts that the market fully understood that structured finance products and models were complex, relatively new, based on forecasts using historical data (which did not include a housing decline), and that underlying borrower quality was not later reevaluated, among other potential weaknesses in Moody's ratings.<sup>81</sup> Dr. Stulz also argues that Moody's quantitative models were available (with a license) to the market, that updates to the models were publicly disclosed, and that a substantial number of market participants knew how to work with

---

<sup>79</sup> Jeff Jewell and Miles B. Livingston (2000), "The Impact of a Third Credit Rating on the Pricing of Bonds," *The Journal of Fixed Income*, December.

<sup>80</sup> Stulz Report ¶ 48 fn. 69. See Mark Adelson, "The Role of the Credit Rating Agencies in the Structured Finance Market, Testimony of Mark Adelson Before the Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises, Committee of Financial Services, U.S. House of Representatives," *Adelson & Jacob Consulting, LLC*, September 27, 2007 at p. 10.

<sup>81</sup> Stulz Report at ¶¶ 21-25, 28, 30-33.

Moody's models given the turnover patterns at Moody's.<sup>82</sup> Defendants' motion also purports to provide specific evidence on these issues.

71. Dr. Stulz is apparently trying to suggest that investors could not have paid inflated prices for Moody's stock because, even if Moody's intentionally lied about its independence and the integrity of its ratings, investors had sufficient information to know Moody's was systematically issuing inflated ratings, and therefore investors could not have relied on the alleged misstatements and omissions. This defies common sense and economic logic. First, even if Moody's provided sufficient information for outsiders to, in theory, replicate their ratings methodology (which I will show they did not), the notion that it would be efficient for the investing public to expend tremendous resources to duplicate Moody's endeavors in an effort to ferret out ratings inflation is not plausible. There is no evidence to suggest anyone undertook such an effort, or even if they did, there is no evidence that anyone made this information widely available to the public market.

72. Second, even if one wanted to replicate Moody's analysis, it would require much more than the "model" that was available from Moody's. In particular, one would need the loan level information (dozens of fields for each loan) for all the loans in the securitized pool, of which there were typically thousands. In addition, one would need to construct a cash flow model from the contractual terms of each securitization – which differed substantially across securitizations and often contain many complex features. One of the sources cited by Dr. Stulz describes this:

The reliability of a CDO rating, therefore, will depend on the rating agencies' ability to assess the credit risk in the underlying asset pool as well as the accurate modelling of the distribution of cash flows from the asset pool to different groups of note holders. For this purpose, all three major agencies follow a two-stage rating approach:

---

<sup>82</sup> Stulz Report at ¶¶ 26, 27.

On the first stage, which is the focus of this paper, analytical models are used to assess pool credit risk. The tools applied for analysing CDO pools may differ according to the nature of the underlying assets and differences will also appear across rating agencies. *The second stage of the process is structural analysis. This stage, which will crucially depend on deal specifics as laid out in the CDO's documentation, involves detailed cash flow modelling as well as legal assessments and evaluations of any third parties involved in the deal, such as servicers and asset managers.* The results of the cash flow analysis, in turn, may feed back into the credit model in the form of adjustments made regarding particular model assumptions. Finally, all of the information is aggregated and mapped into a single, alphanumeric tranche rating benchmarked to the historical performance of corporate bonds.<sup>83</sup> (emphasis added)

73. I have personal experience with valuing securitized loan pools. I was engaged as a consultant to audit a particular issuer's model for valuing the residual interest in several RMBS structures. As indicated by Dr. Stulz, modeling the cash flows in such a structure is very complex and requires a multitude of assumptions. I spent weeks understanding all the implicit and explicit assumptions contained in the models. The notion that Moody's models are simply "available" and can be easily replicated by investors or others to evaluate the reliability of Moody's ratings fails to appreciate the complexity of the task. If it were that easy, Moody's would not have had to spend many millions in developing and implementing their ratings process for structured finance securities.

74. Moreover, Dr. Stulz's discussion leaves the false impression that the rating agencies are completely transparent about the methodologies they employ and that anyone could recreate a rating based upon their published methodologies. Indeed, while Moody's and the other credit rating agencies disclosed some information about how their models operated, they did not disclose the multitude of specific assumptions applied in rating each transaction. For

---

<sup>83</sup> Stulz Report fn. 23: Ingo Fender and John Kiff, "CDO Rating Methodology: Some Thoughts on Model Risk and its Implications," *Bank for International Settlements*, BIS Working Papers, No. 163, 2004.



example, one of the articles Dr. Stulz cites in support of the notion that there were broad public discussions of the ratings methodologies clearly states that,

“all three agencies have repeatedly argued that, depending on the structural features of a transaction, their final rating could be different from what is produced by their models, given that non-quantitative factors might be taken into account.”<sup>84</sup>

75. Furthermore, the notion that the rating agencies were completely transparent is inconsistent with the fact that a substantial focus of credit agency reform was to increase transparency. For example, Senator Levin stated that the SEC investigation found that “Moody’s failed to retain or document certain significant steps in the rating process, which made it difficult for their staff to assess compliance with its rating policies and procedures and to identify the factors that were considered in developing a particular rating.”<sup>85</sup> The SEC report also noted that Moody’s analysts used unpublished models and made changes to assumptions before the market was aware of the changes.<sup>86</sup>

76. Also, Plaintiffs’ claims are not based only upon what was *included* in Moody’s models, but what they *excluded*. For example, the Complaint details how Moody’s, until late in the Class Period, failed to consider the most fundamental loan level detail on Option ARM loans which had grown to represent three out of every four subprime loans.<sup>87</sup> Moody’s, with its touted decades of experience in understanding how to assess credit risk, and access to the detailed loan-level information, was in a far better position than investors to determine whether such information was required to reliably rate structured products that were made up primarily of

---

<sup>84</sup> Stulz Report fn. 23; Ingo Fender and John Kiff, “CDO Rating Methodology: Some Thoughts on Model Risk and its Implications,” *Bank for International Settlements*, BIS Working Papers, No. 163, 2004.

<sup>85</sup> Senator Carl Levin, “Panel III of a Hearing of the Investigations Subcommittee of the Senate Homeland Security and Governmental Affairs Committee; Subject: Wall Street and the Financial Crisis: The Role of Credit Rating Agencies,” *Federal News Service*, April 23, 2010, at p.23.

<sup>86</sup> SEC Examination Report, p. 6.

<sup>87</sup> Complaint ¶¶ 161, 175, 181.



Option ARM loans. Dr. Stulz cites no widely-available public source that suggests the market understood the ramifications of Moody's failure to consider this information.

77. Finally, the value concept of a credit rating is that it assimilates a vast array of information regarding credit quality and reduces it to a single rating that provides useful information about the risk of loss. In my view, it is far-fetched at best to suggest that the market could not have been deceived by Moody's clear public statements about its independence and integrity because Moody's made certain highly technical information representing a subset of its rating process available to the public.

*Dr. Stulz's assertion of Actual Knowledge of Alleged Fraud*

78. Dr. Stulz makes a separate argument that many putative Class Members were in a position to have actual knowledge of the alleged misrepresentations and omissions.<sup>88</sup> As a result, Dr. Stulz argues that this precludes loss causation because in an efficient market the price would have already reflected such knowledge. In addition, Dr. Stulz says that this precludes class-wide reliance because the market is presumably inefficient if the price did not already reflect the misrepresentations and omissions.

79. As I already indicated, Dr. Stulz cites no evidence to suggest there was widely available public knowledge about Plaintiffs' allegations. I understand that insofar as some types of putative Class Members may have had actual knowledge of some of the alleged misconduct (e.g., issuers of structured finance vehicles) – the shares they purchased could be excluded from the Class.

80. Dr. Stulz states:

---

<sup>88</sup> Stulz Report at ¶¶ 51-55, 84.

“as issuers and underwriters of structured finance securities – agents in Plaintiffs’ alleged scheme – also traded Moody’s stock and are members of the putative class, more nuanced knowledge of the alleged fraud would necessarily have diffused through various avenues to other market participants and become widespread. Because of this widespread knowledge, a financial economist would expect that any impact of the alleged fraud would already have been reflected in Moody’s stock price prior to Plaintiffs’ alleged curative disclosures.”<sup>89</sup>

81. First, Dr. Stulz cites no source to substantiate that such information had become “widespread” and generally available to the market. Moreover, to extend beyond actual knowledge of issuers and underwriters, Dr. Stulz’s argument is based upon the speculative and unsupported premise of vast illegal activity. The Stulz Report relies on the notion that people at firms that originated or securitized mortgages, and were therefore supposedly aware of the alleged misstatements and omissions, openly and widely shared inside information (presumably illegally) with traders, money managers, or other individuals at their firms or elsewhere, who in turn profited (presumably illegally) from this inside information. Dr. Stulz provides no evidence to support this conjecture and it is not economically sound to assume such behavior. In addition, there is some evidence that these “issuers and underwriters” deny that they knew that their issues were being fraudulently rated.

82. In conclusion, nothing Dr. Stulz has proffered as “prior knowledge” precludes the alleged misleading statements and omissions from artificially inflating the price of Moody’s stock. His citations to substantiate his thesis are regularly misquoted and upon closer review do not support his arguments. Dr. Stulz errs by equating knowledge of the inherent conflict of interests in Moody’s business as market knowledge that Moody’s acted on those interests. Finally, the notion that the technical information licensed by Moody’s regarding a subset of their

---

<sup>89</sup> Stulz Report ¶ 14.

ratings process provided sufficient knowledge to the market to preclude the possibility that Moody's could have deceived investors does not stand up to scrutiny.

## VII. MATERIALITY

83. The analysis presented in the Stulz Report does not prove the alleged misstatements and omissions were immaterial. Dr. Stulz claims that Plaintiffs incorrectly attribute all of Moody's price movements to Moody's itself, not the market or industry, and have not provided any "empirical basis to substantiate their assertion that any of the alleged misrepresentations were 'material' to investors in Moody's common stock."<sup>90</sup> Indeed, the event study described in a previous section demonstrates that the information released on certain of Plaintiffs' alleged corrective disclosure dates was material to investors – even after controlling for market and industry effects.

84. Dr. Stulz agrees that an event study is the proper tool with which to evaluate the materiality of any firm-specific news event, citing MacKinlay (1997) and Mitchell and Netter (1994):

Typically, event studies use a regression model to isolate the firm-specific stock price return after controlling for market- and industry-wide factors. Once a relationship between the firm's returns and these control factors is estimated, it is possible to predict a stock's expected return on any given day based on market and industry factors, i.e. what the return would have been absent the firm-specific "event." The difference between a stock's actual return and its expected return is called the stock's "abnormal return." Few, if any, abnormal returns will be exactly zero. However, financial economists view such non-zero abnormal returns as immeasurably different from zero unless they cross a certain threshold. Abnormal returns that cross the threshold – typically set so the researcher is 95% confident the return is not due to random chance – are deemed "statistically significant" while other abnormal returns are attributed to random noise. A statistically significant abnormal return in an event study is typically taken to measure the impact the tested event had on the firm's value.

---

<sup>90</sup> Stulz Report at ¶¶ 56, 93.

85. Dr. Stulz endeavors to test for materiality by testing whether Moody's stock price changed materially at the time of the alleged misstatements and/or omissions rather than when Plaintiffs' allege those misstatements and/or omissions were corrected. This procedure would only make sense if the misstatements and/or omissions would be expected to surprise the market. In this circumstance, Moody's making statements about the independence and integrity of its ratings is what the market had come to expect and reflected that status quo. Therefore, one would not expect to observe a substantial change in value when these statements were made. Yet, Dr. Stulz concludes "Therefore, contrary to what Plaintiffs have claimed, the market did not deem the information released on those days to be material."<sup>91</sup> Dr. Stulz's conclusion is based on a test that makes no economic sense. Dr. Stulz fails to differentiate between a misstatement or omission that a reasonable person would expect would move a stock higher and one that would not.

86. Plaintiffs have identified a number of potential corrective disclosures that in their view reveal the truth about their allegations to the market. Evaluating whether this allegedly corrective information caused a decline in stock price is the more logical method to determine whether the alleged false statements were material.

87. For example, On May 21, 2008, Moody's launched an inquiry after the *Financial Times* reported Moody's covered up a model error in its Constant Proportion Debt Obligation ("CPDO") ratings.<sup>92</sup> Plaintiffs allege this is a corrective disclosure regarding the integrity of Moody's ratings methodology. Senator Schumer said that the SEC should impose sanctions if

---

<sup>91</sup> Stulz Report ¶ 63.

<sup>92</sup> The Wall Street Journal, May 21, 2008.

Moody's truly covered up the error.<sup>93</sup> The stock price decline was -\$5.77, or -13.26% with a t-stat of -6.25 – thus indicating it was statistically significant.

88. Dr. Stulz's event study also indicates this event was statistically significant yet he ignores this event in his assessment of materiality. Indeed, in his loss causation discussion related to this event, Dr. Stulz states that, "Nonetheless, it is unsurprising that investors would react negatively to this article, as it raised some questions about the potential existence of large-scale model errors." I agree, but it is unclear how this statement by Dr. Stulz is at all consistent with the remainder of his opinion that investors were not relying on the alleged misstatements and omissions about the integrity of Moody's ratings. By making this statement, Dr. Stulz is acknowledging a direct and material link between market perception of the accuracy of Moody's ratings and investor beliefs regarding the market price of Moody's stock.

89. A further example of a material reaction to an alleged corrective disclosure occurs on August 20, 2007. On that day, Republican Senator Richard Shelby, a leading member of the U.S. Senate Banking, Housing, and Urban Affairs Committee, said credit rating agencies should shoulder some blame for the mortgage debacle. This may have suggested to the market that future legislation calling for strong regulatory scrutiny of the rating agencies would have broad bipartisan support. Indeed, a news story on August 21, 2007 stated that "Shelby's comments add to pressure on the rating companies from both parties in Congress . . ."<sup>94</sup> His statements caused enough reaction that he later issued a second statement not to "over-regulate."<sup>95</sup> In addition, there were a number of stories over the weekend leading up to Monday, August 20 that

---

<sup>93</sup> Reuters News, 16:46 May 21, 2008.

<sup>94</sup> "MARKETS; Wall Street Roundup; Senator hits debt rating firms' role," *Los Angeles Times*, August 21, 2007.

<sup>95</sup> "Lawmakers Must Not Over-Regulate Credit Agencies – US Senator," *Dow Jones International News*, August 20, 2007.

commented on the credit rating agencies and their role in the market turmoil.<sup>96</sup> The decline in Moody's stock price on this day was statistically significant even after controlling for market, industry, and peer effects (loss of \$3.61 per share, abnormal return of nearly -7%, t-stat -6.25). Dr. Stulz's event study arrives at nearly identical results, yet he does not discuss this day in the context of materiality.

90. Also when discussing materiality, Dr. Stulz posits that, if Plaintiffs' allegations are true, ratings downgrades of structured finance projects should be considered corrective disclosures because they signal to the market that Moody's fraudulently inflated ratings (Stulz Report at 92). This is an oversimplification. As Dr. Stulz himself has stated, individual issues may experience downgrades for a variety of reasons. On the dates Dr. Stulz cites, there is no analyst coverage or commentary that accuses Moody's of artificially inflating the initial ratings. Dr. Stulz has not provided a clear rationale why these particular downgrades would be revealing.

91. Dr. Stulz's discussion of market and industry trends during the Class Period serves as a distraction from the event study analysis which clearly shows firm-specific declines after controlling for market and industry factors on certain days that Plaintiffs allege as corrective.<sup>97</sup> My event study, as well as Dr. Stulz's event study, is based on a regression model that explicitly controls for the influence of the market, industry, and direct peers. The remainder of Moody's stock price movement is attributable to Moody's-specific issues or random error.

92. Dr. Stulz also argues that if the structured finance market was besieged by systematic ratings inflation because it was prone to conflicts of interest, ratings performance

---

<sup>96</sup> For example, see "WHO'S TO BLAME? Fingers pointed at credit rating agency monopoly," *The Sunday Telegraph*, August 19, 2007; "Giving Credit Where Due – The search for scapegoats in the current lending mess," *Barrons* August 20, 2007; "Grading the Graders; With the markets in turmoil, familiar questions arise about the bond-rating agencies" *The Washington Post*, August 19, 2007; "Credit Time Bomb Ticked, but Few Heard" *The New York Times*, August 19, 2007;

<sup>97</sup> Stulz Report Section III.B.1., also ¶¶ 94-97

should have been poor historically.<sup>98</sup> Dr. Stulz is once again confounding the presence of conflicts of interest with succumbing to conflicts of interest, which invalidates this entire line of reasoning. Indeed, it would be entirely consistent with Plaintiffs' allegations if ratings performance was unaffected by the potential conflict of interest prior to the Class Period, but then deteriorated during the particular period (the Class Period) when Moody's allegedly abandoned its independence.<sup>99</sup>

93. Moody's SEC filings and public statements strongly indicated that its independence was material.: "The market's trust in and reliance upon Moody's" are part of the "raw materials that support our business," the Company said in its 2005 annual report. "Independence. Performance. Transparency," it went on, "[t]hese are the watchwords by which stakeholders judge Moody's." Moody's also refers to its Code of Professional Conduct, through which Moody's told the market that it seeks "to protect the quality, integrity and independence of

---

<sup>98</sup> Stulz Report at ¶ 87.

<sup>99</sup> Dr. Stulz's comparison of structured finance and corporate bonds fails to acknowledge some of the negative data in the very reports he cites which are further verified in an article by Benmelech and Dlugosz (The Credit Rating Crisis 2010 *NBER*) which states:

...these results suggest that corporate bond ratings were well calibrated to the underlying economic risk of the issuer. In contrast, the average downgrades of structured finance products in 2007 and during the first 3 months of 2008 were -4.7 and -5.8 notches, respectively (fig. 5), suggesting that the initial distribution of structured finance credit ratings was inflated (pp. 175-176).

Another unique aspect of the downgrade wave of structured finance products in 2007 and 2008 is its concentration among AAA-rated tranches. The large magnitudes of the downgrades in the structured finance market shown in figure 6 suggest that many of the tranches downgraded in 2007 and 2008 were highly rated; 11,327 (31%) of all downgrade actions in the first three quarters of 2008 involved AAA rated tranches.

With the exception of 1983, very few AAA-rated corporate bonds were downgraded between 1984 and 2008. The lack of downgrades of AAA securities in the bond market is particularly pronounced during the 2001–2 recession and is consistent with the fairly small magnitude of downgrades in this sector and the fact that only a small share of corporate bonds are rated AAA (pp. 178-179).

the rating process.”<sup>100</sup> Moody’s made similar statements throughout the Class Period on this theme:

- “[T]he growing reliance on our opinions and analyses highlights the importance of assuring integrity into the future. Moody's must be increasingly rigorous and transparent in demonstrating our independence and managing potential conflicts.”<sup>101</sup>
- “The quality and integrity of the processes by which we develop our Credit ratings are of utmost importance to us.”<sup>102</sup>
- “[P]reserving and reinforcing the trust that stakeholders-debt issuers, the investment community, employees, governmental authorities and shareholders- have in Moody's is the foundation for our long-term success.”<sup>103</sup>
- CEO McDaniel: “I think our business has been hurt by what's gone on. I think it would be frankly, disingenuous for me to say it hadn't been. We are a business that really works off of reputational capital more so than others.”<sup>104</sup>

## VIII. LOSS CAUSATION

94. Plaintiffs’ attorneys have advised me that at the Class Certification stage of litigation, Plaintiffs’ burden does not extend to proving loss causation. While I have not been asked to, nor formed any opinions related to loss causation or damages in this matter, I note that Plaintiffs have articulated an economically logical and coherent *theory* of loss causation and have identified potential dates with statistically significant price declines that are at least arguably causally related to the alleged misstatements and omissions.

95. I understand loss causation to be a combination of the “but-for” test and the “foreseeability” test. In other words, would Plaintiffs have suffered the loss but-for Defendants’ actions, and was the loss a foreseeable consequence of their actions? The role for economists in this type of inquiry includes evaluating the economic impact of the alleged fraud in terms of how

---

<sup>100</sup> Jonathan Weil, “Moody’s Says Don’t Inhale the Smoke It’s Puffing,” *Bloomberg*, March 12, 2009.

<sup>101</sup> Complaint at ¶ 71.

<sup>102</sup> Complaint at ¶ 76.

<sup>103</sup> Complaint at ¶ 83.

<sup>104</sup> Complaint at ¶ 361.



it would affect securities prices, and determining whether there is economic evidence to link later price declines (if any) to the revelation of the prior misstatements or omissions.

96. Plaintiffs allege Moody's misrepresentations and omissions include: 1) stating that conflicts of interest were managed adequately when in fact Moody's sacrificed integrity and quality in pursuit of quick profit; 2) promoting Moody's independence when it was compromised; and 3) stating that Moody's considered quality of originator in assigning ratings when in fact it did not. As an economic matter, if Plaintiffs' allegations are true, the foreseeable consequences to Moody's included, but were not necessarily limited to, 1) regulatory, legislative and or law enforcement scrutiny; 2) disclosure model errors; 3) an anomalous number of ratings downgrades; and 4) loss of business and deterioration of financial results. Plaintiffs identify a number of such events that correspond with statistically significant declines in Moody's common stock price.

97. I discussed two examples of potential corrective disclosures in the previous section: August 20, 2007 and May 21, 2008. If Plaintiffs can prove that Moody's misrepresented its independence and integrity, this could foreseeably lead to greater regulatory scrutiny (as was implied by the events on August 20, 2007) and revelation of errors that had gone previously undetected (as was implied by the events of May 21, 2008). In addition, Plaintiffs allege that the lower than expected earnings announced on October 17, 2007 also represents a corrective information and I find that there is a statistically significant decline in Moody's stock price as a result of the information released on that day. Dr. Stulz's own event study confirms there were significant declines in Moody's stock price on August 20, 2007 and May 21, 2008, however he argues that these events do not represent corrective disclosures. Whether these events are indeed

corrective will depend, at least in part, on the evidence established in discovery and can be evaluated on a class-wide basis.

98. While I understand Plaintiffs do not face the burden of proving loss causation at this stage of the litigation, my review of some of Dr. Stulz's arguments regarding why, in his view, the events are not corrective are unavailing. For example, according to the Stulz Report, it was already known by August 20, 2007 that Congress was going to investigate the ratings agencies, so Senator Shelby's comments on August 20 could not have been "new." As articulated above, however, there were press articles indicating that what made Mr. Shelby's comments potentially meaningful is that they may have indicated bipartisan support for increased regulation of the credit rating agencies.<sup>105</sup> The previous comments cited by Dr. Stulz were all from Democratic senators.

99. In addition, Dr. Stulz argues that after the alleged corrective disclosure on May 21, 2008 the market price of Moody's recovered relative to the S&P 500 Financial Index "when investors' concerns over regulatory changes were alleviated in the subsequent weeks"<sup>106</sup> To support this opinion he presents Exhibit 18 which purports to show that Moody's recovered relative to an index over a several week period. However, Dr. Stulz identifies no positive statistically significant date between May 21, 2008 and July 10, 2008 that has specific news related to CPDO ratings. He therefore has no reliable basis to tie the recovery in the price relative to the index to "alleviated concerns" as opposed to normal variation in Moody's market price. Indeed, much of the news he cites to during the period between May 21, 2008 and July 10, 2008 has nothing to do with the error in the CPDO ratings such as IOSCO issuing a revised

---

<sup>105</sup> "MARKETS; Wall Street Roundup; Senator hits debt rating firms' role," *Los Angeles Times*, August 21, 2007.

<sup>106</sup> Stulz Report, at 116.

code of conduct, a settlement with the New York AG regarding fee reforms, an SEC meeting and proposal regarding additional regulatory requirements, and release of a new SEC report discussing various concerns about the rating agencies.

100. These are just examples of imperfections in Dr. Stulz's analysis regarding loss causation on the alleged corrective disclosure dates. Since I have not performed a complete analysis of loss causation in this matter, my silence on other aspects of his analysis represents neither acceptance nor rejection of his views and I reserve the right to expand my comments if asked to opine further on loss causation.

101. Dr. Stulz devotes a section of his report to the notion that Plaintiffs have not demonstrated Moody's caused the financial crisis. Plaintiffs are not claiming Moody's caused the financial crisis. Nor are Plaintiffs claiming that Moody's stock price was not affected by the financial crisis. In fact, my event study analysis explicitly controls for general market and industry effects on Moody's attributable to the financial crisis, as does Dr. Stulz's event study.

102. Dr. Stulz's also argues that different class members have different incentives for pursuing different corrective disclosure dates and therefore Lead Plaintiffs' claims are not typical of other potential class members. From an economic perspective, the argument proposed by Dr. Stulz could be lodged against any putative class where there are multiple or partial corrective disclosures. In my experience, with a few exceptions, almost all certified class action Rule 10b-5 securities matters involve multiple alleged corrective disclosures. Finally, although putative class members may have different damages based upon when they transacted shares in relation to the alleged corrective disclosure dates, the evaluation of loss causation and the establishment of a damages formula can be accomplished on a class-wide basis as it is in many other securities cases.

Respectfully Submitted on August 23, 2010

A handwritten signature in black ink, appearing to read "Chad Coffman", written over a horizontal line.

Chad Coffman